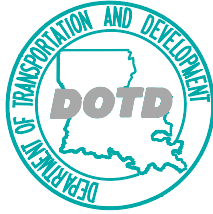


**STATE OF LOUISIANA  
SABINE RIVER AUTHORITY  
  
BID PROPOSAL**



**SABINE RIVER AUTHORITY  
PUMP STATION #3 POWER & CONTROL UPGRADE  
CALCASIEU PARISH**

## NOTICE TO CONTRACTORS

Sealed bids (NO FAXED BIDS) for construction of the following project will be received by the Sabine River Authority, Diversion Canal Office 2365 E. Napoleon St., Sulphur, LA 70663 until 10:00 AM CST on **Tuesday, June 13, 2006**, at which time and place bids will be publicly opened and read. No bids will be received after 10:00 AM CST.

A non-mandatory pre-bid conference is scheduled per the following. Attendance is not required but is strongly urged.

Day/Date: Tuesday, May 23, 2006

Time: 10:00 AM CST

Place: SRA Diversion Canal Office, 2365 E. Napoleon St., Sulphur, LA 70663

**STATE PROJECT NO.: SRD00706-1**

**PROJECT LIMITS: Attached Specifications**

**WORK TO BE DONE: Furnish Materials & Labor to Upgrade Pump Station #3**

**PROPOSAL GUARANTY: Performance Bond (applies to successful Bidder),**

**Shall be at least equal to the amount of the contract price.**

**INSURANCE COVERAGE: If deemed necessary Builder's Risk Coverage shall be provided by the successful vendor (see enclosed information notice).**

**PROJECT ENGINEER: Mr. Barton Rumsey, 15091 Texas Hwy., Many, LA 71449**

**Telephone No. (318) 256-4112**

**COST OF PROPOSAL FORMS: No Charge**

Payment terms will be as follows:

### Standard Payment Terms

A payment not to exceed 90% of the contract amount will be made within (30) thirty days of job completion and final acceptance by SRA.

The remaining 10% or more retainage will be paid upon receipt of a clear lien certificate from the contractor.

### Optional Payment Terms

If mutually agreed upon by the successful Contractor and SRA other payment terms may be written into the contract agreement.

Bids must be submitted on the proposal forms provided by the SRA, must be prepared in accordance with Louisiana Public Bid Law as stated in LA R.S. Title 38:2211 – 2296, and must include all information required by the proposal.

**NOTICE TO CONTRACTORS (CONTINUED)**

The contract will be awarded to the lowest responsible bidder without discrimination on grounds of race, color, sex or national origin. Disadvantaged Businesses will be afforded full opportunity to submit bids.

The award of contract, if awarded, will be made to the lowest qualified bidder whose proposal complies with all requirements prescribed, within 14 calendar days after opening proposals. The successful bidder will be notified by letter mailed to the address shown in the proposal that the bidder is awarded the contract. The Notice to Proceed will be effective five (5) calendar days after the contract is awarded, in order to allow for assembly of materials.

The right is reserved to reject bids and waive informalities.

The U. S. Department of Transportation (DOT) operates a toll free "Hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should call 1-800-424-9071. All information will be treated confidentially and caller anonymity will be respected.

SECRETARY, DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT



**CONSTRUCTION PROPOSAL  
RETURNABLES  
FOR**

**SABINE RIVER AUTHORITY  
PUMP STATION #3 POWER & CONTROL UPGRADE  
CALCASIEU PARISH**

**CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM**

# INVITATION TO BID

**THIS FORM, THE SCHEDULE OF ITEMS, AND THE PROPOSAL GUARANTY MUST BE COMPLETED AS INDICATED AND SUBMITTED TO THE SABINE RIVER AUTHORITY OF LOUISIANA (SRA) TO CONSTITUTE A VALID BID**

STATE PROJECT NO(S). SRD00706-1

NAME OF PROJECT

I (WE) HEREBY CERTIFY THAT I (WE) HAVE CAREFULLY EXAMINED THE PROPOSAL, PLANS AND SPECIFICATIONS, INCLUDING ANY AND ALL ADDENDA, AND THE SITE OF THE ABOVE PROJECT AND AM (ARE) FULLY COGNIZANT OF ALL PROPOSAL DOCUMENTS, THE MASTER COPY OF WHICH IS ON FILE AT THE SRA PENDLETON HEADQUARTERS IN \_\_\_\_\_, LA., AND ALL WORK, MATERIALS AND LABOR REQUIRED THEREIN, AND AGREE TO PERFORM ALL WORK, AND SUPPLY ALL NECESSARY MATERIALS AND LABOR REQUIRED FOR SUCCESSFUL AND TIMELY COMPLETION OF THE ABOVE PROJECT AND TO ACCEPT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS ATTACHED HERETO AND MADE A PART HEREOF MULTIPLIED BY THE ACTUAL QUANTITY OF UNIT OF MEASURE PERFORMED FOR EACH ITEM, AS AUDITED BY DOTD, AS FULL AND FINAL PAYMENT FOR ALL WORK, LABOR AND MATERIALS NECESSARY TO COMPLETE THE ABOVE PROJECT, SUBJECT TO INCREASE ONLY FOR PLAN CHANGES (CHANGE ORDERS) APPROVED BY THE DOTD CHIEF ENGINEER OR HIS DESIGNEE. THIS BID IS SUBMITTED IN ACCORDANCE WITH THE GENERAL BIDDING REQUIREMENTS IN THE CONSTRUCTION PROPOSAL AND ALL SPECIAL PROVISIONS, PLANS, SUPPLEMENTAL SPECIFICATIONS, AND THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2000 EDITION). I (WE) UNDERSTAND THAT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS MULTIPLIED BY THE ESTIMATED QUANTITY OF UNIT OF MEASURE FOR EACH ITEM SHALL BE THE BASIS FOR THE COMPARISON OF BIDS. I (WE) UNDERSTAND THAT THE SCHEDULE OF ITEMS MUST CONTAIN UNIT PRICES WRITTEN OUT IN WORDS AND THAT THE SCHEDULE OF ITEMS SUBMITTED AS PART OF THIS BID IS ON THE FORM SUPPLIED BY SRA IN THE BID PROPOSAL. MY (OUR) PROPOSAL GUARANTY IN THE AMOUNT SPECIFIED IN THE ADVERTISEMENT FOR THE PROJECT IS ATTACHED HERETO AS EVIDENCE OF MY (OUR) GOOD FAITH TO BE FORFEITED IF THIS BID IS ACCEPTED BY SRA AND I (WE) FAIL TO EXECUTE AND DELIVER THE CONTRACT AND PAYMENT/PERFORMANCE/RETAINAGE BOND AS REQUIRED IN THE SPECIFICATIONS.

## NONCOLLUSION DECLARATION

I (WE) DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF LOUISIANA THAT I (WE) HAVE NOT DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE CONTRACT FOR THIS PROJECT NOR VIOLATED LA. R.S. 48:254.

STATE PROJECT NO(S).

# **BIDDER SIGNATURE REQUIREMENTS** (APPLICABLE TO ALL PROJECTS)

THIS BID FOR THE CAPTIONED PROJECT IS SUBMITTED BY:

\_\_\_\_\_  
(NAME OF INDIVIDUAL, FIRM OR CORPORATION)

\_\_\_\_\_  
(LA. CONTRACTOR'S LICENSE NUMBER - REQUIRED)

\_\_\_\_\_  
(BUSINESS STREET ADDRESS)

\_\_\_\_\_  
(BUSINESS MAILING ADDRESS, IF DIFFERENT)

\_\_\_\_\_  
(AREA CODE AND PHONE NUMBER OF BUSINESS)

\_\_\_\_\_  
(TELEPHONE NUMBER AND NAME OF CONTACT PERSON)

\_\_\_\_\_  
(FAX NUMBER, IF ANY)

ACTING ON BEHALF OF THE BIDDER, THIS IS TO ATTEST THAT THE UNDERSIGNED DULY AUTHORIZED REPRESENTATIVE OF THE ABOVE CAPTIONED FIRM, CORPORATION OR BUSINESS, BY SUBMISSION OF THIS BID, AGREES AND CERTIFIES THE TRUTH AND ACCURACY OF ALL PROVISIONS OF THIS PROPOSAL, INCLUSIVE OF THE REQUIREMENTS, STATEMENTS, DECLARATIONS AND CERTIFICATIONS ABOVE AND IN THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY. EXECUTION AND SIGNATURE OF THIS FORM AND SUBMISSION OF THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY SHALL CONSTITUTE AN IRREVOCABLE AND LEGALLY BINDING OFFER BY THE BIDDER.

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(PRINTED NAME)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(DATE OF SIGNATURE)

CONTRACTOR'S TOTAL BID \$ \_\_\_\_\_

IT IS AGREED THAT THIS TOTAL, DETERMINED BY THE BIDDER, IS FOR INFORMATIONAL PURPOSES ONLY AND THAT THE LOW BIDDER FOR THIS PROJECT WILL BE DETERMINED FROM THE EXTENSION AND TOTAL OF THE BID ITEMS BY SRA.

## SPECIFICATIONS FOR PUMP STATION #3 POWER & CONTROLS UPGRADE

WORK LOCATION: Sabine River Diversion Canal System, Pump Station #3, Westlake, LA.

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A Non-Mandatory pre-bid conference has been scheduled for 10:00 a.m. May 23, 2006 for prospective bidders to view the job site. Since the pumps station drawings have not been up to date for some time, attendance is not required but is strongly urged. In attending this conference each bidder will fully understand the equipment that is to be modified/upgraded.

TO CONFIRM SITE VISIT CONTACT HUNTER HEATH AT THE SABINE RIVER AUTHORITY OFFICE IN SULPHUR, LA. MON. – THURS. FROM 6:30 AM TO 4:30 PM AT PHONE NUMBER (337) 625-9020.

Much of the existing SCADA System used to monitor the Diversion Canal System is comprised of **Allen Bradley** brand name parts and equipment. Each contractor and/or sub-contractor must have previous experience and a working knowledge relating to the Allen Bradley parts and equipment to be included on this project. Please submit with your bid; Job References and/or Work History involving installation and commissioning of Allen Bradley PowerFlex 700H Drive Equipment, Allen-Bradley ControlLogix controllers, Allen Bradley DeviceNet Motor Control Centers, RS-View32 HMI Software, and MDS Spread Spectrum Radio Systems.

All contractors will be required to submit implementation diagrams and a narrative describing in detail the implementation plan (addressing plans, & sequence for equipment demolition, motor retrofit, control system and HMI implementation, MCC and VFD implementation, and Radio Modem implementation) with their bid. The diagrams should show what the finished station will look like. The narrative should give information on materials/equipment to be installed, I.T. hardware and software and how the installation will be performed (**stamped plans or drawings will not be required at the bid phase of this project, but they shall be required of the successful bidder following the award of bid and prior to commencement of work**).

1. ***Mechanical – Motor and Variable Speed Drive Placement.*** The existing pair of 300 HP 2300V vertical pump motors and dynamatic variable speed drive clutches will be removed. A pair of new 8-pole 400 HP, 900 RPM motors will be furnished and installed. Adapter assemblies and couplings will be modified or fabricated to allow the new motors to mate to the existing pumps, thereby eliminating the dynamatic units. Minimum motor specs. are as follows:

- |   |  |
|---|--|
| *Reliance Duty-Master Vertical Design   | *Open Drip Proof Enclosure   |
| *400 HP, 900 RPM, 480V, 8 pole design   | *Insulated bearings on both ends   |
| *Shaft ground brush   | *Oil lube bearing system   |
| *C5 Steel Core Plating on rotor & stator laminate stacks capable of withstanding lamination annealing and burn-out temperatures experienced with motor rewinds. | *Standard & sealed insulation systems based on VPI (vacuum pressure impregnated) epoxy rotate-cure insulation. |
| *Enduraseal 2-VPI sealed system that passes the water immersion test per NEMA MG1-20.18.1   | *3 winding surge tests prior to VPI processing   |
| *Warranty (see section at end of bid)   | *Cast Iron bearing inner caps  |
| *All miscellaneous hardware, couplings, construction materials, etc. required to bring the system back into full operational status                             |  |

2. ***SwitchGear / Motor Control Center (MCC) Replacement.*** The existing obsolete 2300V switchgear and Motor Control Center (MCC) will be removed and the 2300V service disconnected at the upstream feeder transformer by the successful bidder. SRD will instruct Entergy to shut off power to the station for a period. A new DeviceNet ready MCC will be furnished and installed by the successful bidder to replace the old gear. The new MCC main breaker will be rated for service entrance duty, thereby eliminating the need for a separate switchgear lineup. The MCC will consist of the following:

- \*1600A service entrance rated Main CB
- \*1600A Copper/Tin Centerline Bus
- \*Neutral Bus & Horizontal Ground Bus
- \*(2) Feeder CB's for existing power panels
- \*(1) Feeder CB / Control Transformer Unit (120V output) w/ sufficient VA capacity to provide control power for the control system, HMI, and radio modem w/ 30% spare capacity
- \*Control Panel Bay (see section 3)
- \*(2) 400 HP, 900 RPM, 480V DeviceNet Powerflex Variable Speed Drives (**Allen Bradley Powerflex 700H**)
- \*All miscellaneous construction materials required to bring the system back into full operational status
- \*All equipment and installation practices MUST meet all applicable local, state and national codes (i.e. OSHA, UL, NEC, NFPA etc.)
- \*PM3000–M6 Digital Metering w/Ethernet Comms
- \*65,000 Amp Bracing w/ Automatic Shutters
- \*VersaView HMI Terminal (Sec. 3) mounted in 35" Bay Door
- \*MCC unit & one line diagram

It will be necessary for Entergy to provide the station a 480V power source of at least 750KVA (Wye secondary) to feed the new MCC lineup.

3. ***SCADA Master***

The existing MDS Model# 9810 will be removed and replaced with a MDS Mercury radio modem (MDS iNET-II not available for sale yet). The new modem will have both an RS-232 and Ethernet port. The RS-232 port will be re-connected to the existing SLC-500 (CH-0) and communications parameters modified to re-establish Remote-to-Master communications. The Ethernet port will be tied to the SCADA Master PC through the N-Tron switch mentioned below. All communications between Pump Station 3 and the Master should be via the new Ethernet radio link. The RF feed-line connector may have to be changed to match the radio connector. Also, the successful bidder will be responsible for taking whatever steps necessary to ensure reliable communications can be maintained from all (5) remote sites to the Master, regardless of the current level of reliability. This may even include the replacement of one or more feed-lines, antennas, etc. for reliable communications

- \*Include an N-tron 4-port switch
- \*All miscellaneous construction materials required to bring the system back into full operational status

***Pump Station #3 Control System.*** The MCC above (in section 2) will include a 35" wide bay containing all of the necessary control equipment to functionally replace the existing 120V and 24VDC station controls. The following will be included in the bay:

- \*ControlLogix 1756-L61 CPU, Chassis, Power Supply (PA75), Ethernet & DeviceNet Comm Modules & I/O w/associated TB's
- \*Battery Backup UPS in same control bay to sustain control power (for CPU, I/O, Radio, and HMI) for at least 10 minutes
- \*I/O Diagrams
- \*DeviceNet & Instrument power supplies
- \*VersaView Industrial TouchScreen PC
- \*Radio Equipment – the existing MDS 9810 radio modem will be replaced using the newer MDS Mercury radio modem (use MDS iNET-II if Mercury not available for sale yet). Comms will be established via the Ethernet port
- \*Include an N-tron 4-port switch
- \*Include 20% spare I/O points per Module and 20% spare chassis slots
- \*All module I/O points landed to individually fused terminal blocks w/ Blown Fuse Indication
- \*Control bay to include (1) 8-pos AC Pwr Distr. strip on DIN Rail. Each pos'n made up of (1) CB and one TB
- \*Control bay to include (1) 8-pos DC Pwr Distr. strip on DIN Rail. Each pos'n made up of (1) CB and one TB
- \*All in-cabinet AC digital I/O wiring to be MTW #14 (not THHN) and must have a printed shrink marker on each end



- \*All analog wiring to be 1-pair shielded instrument cabling & must have a printed shrink marker on each end
- \*Plastic wiring duct to be used wherever possible in the control cabinet
- \*A separate equipment and instrument copper ground bus should be included
- \*The RF feed-line connector may have to be changed to match the radio connector.
- \*The successful bidder will be responsible for taking whatever steps necessary to ensure reliable radio communications can be maintained between this site and the Master site, regardless of the current level of reliability. This may even include the replacement of one or more feed-lines, antennas, etc. for reliable communications
- \*All miscellaneous construction materials required to bring the system back into full operational status

***Other 4 Remote Sites (PS-1, PS-4, G1, & G4)***

- \*Radio Equipment – All 4 existing MDS 9810 radio modems will be replaced using the newer MDS Mercury radio modem (use MDS iNET-II if Mercury not available for sale yet). Comms will be established via the RS-232 port, leaving the Ethernet port for future use.
- \*The RF feed-line connectors may have to be changed to match the radio connectors.
- \*The successful bidder will be responsible for taking whatever steps necessary to ensure reliable radio communications can be maintained between these 4 sites and the Master site, regardless of the current level of reliability. This may even include the replacement of one or more feed-lines, antennas, etc. for reliable communications
- \*All miscellaneous construction materials required to bring the system back into full operational status

**4. HMI Software Licenses.**

**SCADA Master:** The existing SCADA Master PC (currently running an RSView32 Runtime license) must be upgraded by the successful bidder to include the following software:

- a. RS-View32 Works
- b. RS-Logix 5000 w/ FBD editor program development software
- c. RS-Logix 500 development software

- \* All software media (CD's, activation disks, etc.) must be surrendered to SRD immediately after project completion

**Pump Station 3**

- RS-View32 Works 150 Tag w/ Linx

**5. Software Design.**

**Logic Configuration.** Contractor shall provide engineering to configure a new ContolLogix-based pump station control system to function in a similar fashion to the existing relay and SLC based systems. Since the radio modem will be connected directly to the CPU's serial port, all radio communications will pass through the ControllLogix CPU.

**Operator Interface.** The RSView32 software (running on the new VersaView touch-screen computer) will be configured to display:

- |                              |   |                             |
|------------------------------|---|-----------------------------|
| *Station Alarms              | *Actual Header Pressure                                   | *Current Pressure Set point |
| *Selected Mode for each pump | *Pump/Motor Status (Speed, pressure, recent faults, etc.) |                             |

The Operator Interface Station will be configured to accept the following operator inputs:

- |                                 |   |
|---------------------------------|---|
| *Header Pressure Set point      | *Manual Speed Command                     |
| *Manual Start/Stop of the pumps | *Desired pump failover pressure threshold |

**6. System Documentation.** Contractor shall furnish (2) copies of electronic documentation in DVD format. Documentation shall consist of the following:

- |                     |                      |                  |
|---------------------|----------------------|------------------|
| *Controller Program | *Hardware Manual Set | *System Drawings |
|---------------------|----------------------|------------------|

Vendor shall guarantee and warranty installation for a period of \_\_\_\_\_ year/s after upgrades are satisfactorily completed.

Manufactures warranty for Motors: \_\_\_\_\_ years.

Manufactures warranty for Power Flex Drives: \_\_\_\_\_ years.

Manufactures warranty for ControlLogix CPU: \_\_\_\_\_ years.

SABINE RIVER AUTHORITY  
SCHEDULE OF ITEMS

PAGE: 1

DATE: \_\_\_\_\_

PROJECT: PUMP STATION #3 POWER AND CONTROL UPGRADES

OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
001  MOTOR & V.S. DRIVE REPLACEMENT	1	JOB	_____ DOLLARS _____ CENTS
002  SWITCHGEAR & MCC REPLACEMENT	1	JOB	_____ DOLLARS _____ CENTS
003  CONTROL SYSTEM HARDWARE	1	JOB	_____ DOLLARS _____ CENTS
004  SOFTWARE DESIGN INSTALL & CONFIGURE	1	JOB	_____ DOLLARS _____ CENTS

SABINE RIVER AUTHORITY  
SCHEDULE OF ITEMS

PAGE: 2

DATE: \_\_\_\_\_

LEAD PROJECT: PUMP STATION #3 POWER AND CONTROL UPGRADES

OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
005  SYSTEM DOCUMENTATION	1	JOB	_____ DOLLARS _____ CENTS
006  STARTUP SERVICES	8 HRS. (ESTIMATED)	HOURL	_____ DOLLARS _____ CENTS
007  MISCELLANEOUS COST (PERFORMANCE BOND) (BUILDER'S RISK INS.)	1	LUMP SUM	_____ DOLLARS _____ CENTS
GRAND TOTAL			_____ DOLLARS _____ CENTS

## REQUEST FOR BIDS

Sealed bids will be opened at the Sabine River Authority, Diversion Canal Office, 2365 E. Napoleon St., Sulphur, LA 70663, at 10:00 AM CST on Tuesday, June 13, 2006, for the following:

Project No. SRD00706-1

Pump Station #3 Power and Control Upgrades

A non-mandatory pre-bid conference is scheduled per the following. Attendance is not required but is strongly urged.

Day / Date: Tuesday, May 23, 2006  
Time: 10:00 AM CST  
Place: Sabine River Authority,  
Diversion Canal Office  
2365 E. Napoleon St.  
Sulphur, LA 70663

Bid packets may be obtained by contacting the Purchasing Section at Sabine River Authority Headquarters, 15091 Texas Hwy., Many, LA 71449, Phone (318) 256-4112, or Sabine River Diversion Canal Office, P.O. Box 336, Sulphur, LA 70664, Phone (337) 625-9020.

Bids will be received up until the bid opening Date and Time. The right is reserved to reject any and all proposals and to waive any informalities.